

ABSTRACT

The invention provides a process for producing fumed metal oxide particles comprising providing a stream of a liquid feedstock comprising a volatilizable, non-halogenated metal oxide precursor, providing a stream of a combustion gas having a linear velocity sufficient to atomize and combust or pyrolyze the liquid feedstock, and injecting the stream of the liquid feedstock into the stream of combustion gas to form a reaction mixture such that the liquid feedstock is atomized and subjected to a sufficient temperature and residence time in the combination gas stream for fumed metal oxide particles to form before the combustion gas temperature is reduced below the solidifying temperature of the metal oxide particle. The invention further provides fumed silica particles having a relatively small aggregate size and/or narrow aggregate size distribution.